FACILITY STATUS CHANGE FORM

Date Submitted:	Area:	Control #:
April 17, 2013	300 Area	D4-300-062
Originator:	**Facility ID:**	
Chris Strand	327 and 3723	
Phone:	**Action Memorandum:**	
554-2720	Action Memorandum #2	

This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.

Section 1: Facility Status

☐ All D4 operations required by action memo complete.

☒ D4 operations required by action memo partially complete, remaining operations deferred.

Description of Completed Activities and Current Conditions:

Deactivation: Utility isolations were performed on the facility prior to beginning facility decontamination.

The following hazardous materials were removed prior to facility demolition: lead, asbestos, batteries, Freon, oil, light ballasts, HEPA filters, radioactive materials and equipment, and miscellaneous construction materials. Hazardous material removal and waste disposition was performed in accordance with *Removal Action Work for 300 Area Facilities*, DOE/RL-2004-77, Revision 2 (RAWP).

In addition to hazardous material removal, deactivation included removal of high source-term radioactive materials and facility components. These items included, but were not limited to, hot-cells, ventilation duct, RRLWS and RWLS piping, and sample storage devices.

Demolition: Demolition of the 327 Building was completed in June of 2012. The building debris were removed and disposed of at ERDF. The demolition was performed under Radiological and Industrial Hygiene controls. Asbestos abatement was performed by certified asbestos workers.

Description of Deferral (as applicable):

Final grading of the 327 site is deferred to remediation of waste site piping remaining in the area.

Section 2: Underlying Soil Status

☐ No waste site(s) present. No additional actions anticipated.

☒ Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.

☐ Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned.

Cleanup and closeout to be addressed under Record of Decision.

Description of Current/As-Left Conditions:

The 327 and 3723 excavation was backfilled to grade with clean soil to grade. Final grading will be performed following remediation of waste site piping remaining in the area. Radiological postings associated with waste site piping remain.

Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

300-RRLWS (retired radioactive liquid waste sewer), 300-RLWS (radioactive liquid waste sewer), 300-214 (retention process sewer), and 300-15 (process sewer). Waste site number 300-264 was assigned to the 327 Building itself and did not represent an unplanned release or otherwise contaminated environmental media.

Section 3: List of Attachments

1. Facility information (building history, characterization, and identification of documented waste sites).
2. Project photographs.

FACILITY STATUS CHANGE FORM

3. Waste Site Reclassification Form (2012-038).
4. Final Excavation GPERS surveys.

DOE-RL — Date: 4/17/2013

Lead Regulator ☒ EPA ☐ Ecology — Date: April 17, 2013

DISTRIBUTION:

EPA: Larry Gadbois, B1-46
Ecology: Rick Bond, HO-57
DOE: Rudy Guercia, A3-04
Document Control, H4-11
Administrative Record, H6-08 (300-FF-2 OU)

SIS Coordinator: Ben Cowin, H4-22
D4 EPL: Chris Strand, L4-45
Sample Design/Cleanup Verification:Theresa Howell
FR Engineering: Eric Ison, L6-06
FR EPL: Chris Strand, L4-45

Attachment 1: Facility Information

327 and 3723 Building Histories:

The 327 Post Irradiation Test Laboratory was originally constructed in 1953. Additions and modification to the building occurred in 1960 and 1963 that increased the building footprint to 30,000 square feet. The 327 Building was a single-story on grade structure with a basement. Construction was of welded steel framing and fluted steel insulated panels for exterior walls. The main laboratory held ten hot cells, two water-filled storage basins for holding irradiated fuel rods, two lead brick cells, a burst test facility and a decontamination chamber. In 1970, the Special Environmental Radiometallurgical Facility (SERF) cell replaced the decontamination chamber in the north central portion of the building. Office modifications were made to the building in 1978.

The work performed in the 327 Building involved and generated extremely high-activity wastes, including studies of blistered and/or distorted fuel elements following irradiation, the establishment of specifications for N-Reactor fuel rods, and waste vitrification projects. The 327 Building passed from General Electric to Battelle Northwest Laboratory in 1965, to Westinghouse Hanford Company in 1970, to Pacific Northwest National Laboratory in 1987 who operated the building until 1996 when the facility was transferred to B&W Hanford Company for interim operation. Washington Closure Hanford planning and documentation began in August of 2005, deactivation and decommissioning was completed in August of 2010. Deactivation and decommissioning of the 327 Building included removal of all irradiated fuel rods and special case waste in accordance with the *Special Case Waste Project Management Plan*, HNF-5068, Rev. 1A. Above-grade demolition of 327 and 3732 were completed in July of 2011, below-grade demo was finished in June of 2012. Final cleanup of residual radioactive contamination associated with demolition activities and equipment decontamination was completed in February 2013. These areas consisted of two excavations on the east and west sides of the former building location.

The 3723 Solvent and Acid Storage Building was a concrete block building with a steel roof on a concrete slab that measured 9' by 16'. The 3723 Building was located on northwest corner of the 327 Building and used to store acids, solvents and recycle materials that supported 327 operations. Above-grade and below-grade demolition was completed in September of 2010 and February of 2011, respectively.

Building Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected at the 327 and 3723 Buildings.

Table 1. Summary of Characterization Surveys at 327 & 3723.

Type	Date	Documented In	Results Summary
Pre-Demolition			
Asbestos	July 13, 2006	CNN # 128682	ACM was identified in numerous forms and locations and included friable TSI, HVAC insulation, floor tile, mastic and roofing materials.
IH Surveys and Beryllium Characterization	January 23, 2006 September 5, 2007 August 19, 2009 May 13, 2010	CNN # 125749 CNN # 135421 CNN # 145965 CNN # 150916	327 was listed as a building with known Be contamination. Wipe and bulk sample results were below regulatory limits for Be, Pb, Cd and Cr. No Be, Pb, Cd or Cr above action levels in 3723.

Table 1. Summary of Characterization Surveys at 327 & 3723 Continued.

Radiological Surveys	Feb 14, 2006	RSR-324PS-06-1928	Numerous radiological scoping surveys were completed through the 327 deactivation and demolition process. Radiological conditions in the facility ranged from low to high levels of contamination and associated dose rates. All work was performed under radiological work controls.
	May 12, 2006	RSR-324PS-06-0356	
	May 25, 2006	RSR-324PS-06-0630	
	May 30, 2006	RSR-324PS-06-0654	
	May 31, 2006	RSR-324PS-06-0668	
	Sept 18, 2006	RSR-324PS-06-1363	
	Sept 26, 2006	RSR-324PS-06-1419	
	Oct 18, 2006	RSR-324PS-06-1560	
	Oct 18, 2006	RSR-324PS-06-1561	
	Oct 19, 2006	RSR-324PS-06-1581	
	Oct 26, 2006	RSR-324PS-06-1615	
	Dec 7, 2006	RSR-324PS-06-1889	
	Feb 5, 2007	RSR-324PS-07-0210	
	Feb 8, 2007	RSR-324PS-07-0233	
	April 10, 2007	RSR-324PS-07-0596	
	April 12, 2007	RSR-324PS-07-0607	
	August 21, 2007	RSR-300PS-07-1693	
	May 8, 2007	RSR-324PS-07-0755	
	June 14, 2007	RSR-324PS-07-0952	
	Oct 9, 2007	RSR-300PS-07-2290	
	Nov 1, 2007	RSR-300PS-07-2555	
	Nov 7, 2007	RSR-300PS-07-2614	
	Nov 12, 2007	RSR-300PS-07-2651	
	Nov 28, 2007	RSR-300PS-07-2824	
	Dec 10, 2007	RSR-200PS-07-2940	
	Jan 23, 2008	RSR-300PS-08-0290	
	Feb 6, 2008	RSR-300PS-08-0404	
	March 24, 2008	RSR-300PS-08-1959	
	April 1, 2008	RSR-300PS-08-1059	
	April 14, 2008	RSR-300PS-08-1225	
	April 14, 2008	RSR-300PS-08-1228	
	April 15, 2008	RSR-300PS-08-1237	
	April 18, 2008	RSR-300PS-08-1584	
	April 22, 2008	RSR-300PS-08-1339	
	May 22, 2008	RSR-300PS-08-1637	
	May 22, 2008	RSR-300PS-08-1689	
	May 27, 2008	RSR-300PS-08-1678	
	May 29, 2008	RSR-300PS-08-1697	
	July 29, 2008	RSR-300PS-08-2337	
	Aug 7, 2008	RSR-300PS-08-2465	
	Aug 11, 2008	RSR-300PS-08-2477	
	Aug 18, 2008	RSR-300PS-08-2881	
	Aug 26, 2008	RSR-300PS-08-2677	
	Sept 16, 2008	RSR-300PS-08-2881	
	Oct 31, 2008	RSR-300PS-08-3374	
	Dec 9, 2008	RSR-300PS-08-3759	
	Feb 16, 2008	RSR-300PS-10-0514	
	Feb 17, 2009	RSR-300PS-09-0521	
	March 3, 2009	RSR-300PS-09-0689	
	March 10, 2009	RSR-300PS-09-0786	
	June 3, 2009	RSR-300PS-09-1732	
	July 27, 2009	RSR-300PS-09-2104	
	Sept 11, 2009	RSR-300PS-09-2478	
	Sept 24, 2009	RSR-300PS-09-2593	
	Oct 12, 2009	RSR-300PS-09-2745	
	Oct 27, 2009	RSR-300PS-09-2894	
	Jan 14, 2010	RSR-300PS-10-0147	
	Aug 13, 2010	RSR-300PS-10-2624	
	Feb 17, 2011	RSR-300PS-11-0735	

Associated WIDS sites:

300-RRLWS, 300-RLWS, 300-214, and 300-15 piping serviced the building. Segments of each were removed within the excavation layback during below-grade demolition.

Waste site number 300-264 was assigned to the 327 Building itself and did not represent an unplanned release or otherwise contaminated environmental media.

Anomalies Discovered During Demolition/Underlying Soils Evaluation:

No anomalies were encountered during the 327 & 3723 demolition. Soils beneath the basement slab and foundation were investigated before below-grade demolition for evidence of any past undocumented release from the building. Radiological conditions of the soils beneath the slab were normal indicated no past releases had occurred. Following demolition of the basement, the residual contamination from demolition activities was removed and an inspection observed no visual evidence of staining or discoloration.

GPERS surveys of the 327 and 3723 excavation following below-grade demolition were influenced by background radiological fields from adjacent contaminated piping valve boxes. Soil samples were collected and analyzed to ensure no radiological contamination existed above remedial action goals. This information is documented in Waste Site Reclassification form 2012-038 that is included as Attachment 3. This condition was experienced again at one location near the remaining RLWS valve box during GPERS surveys (reference Attachment 4) of the final eastern excavation. Fifteen focused soil samples were taken near the structure causing the elevated background. Gamma energy analysis results for samples FF2-13-0432-1 through 15 are consistent with background levels with one exception. Sample FF2-13-0432-8 displayed Cs-137 at .911 pCi/g, which is slightly above background levels but below remedial action limits.

Attachment 2: Project Photographs

Figure 1: Looking north at the 327 and 3723 Buildings on September 10, 1993.

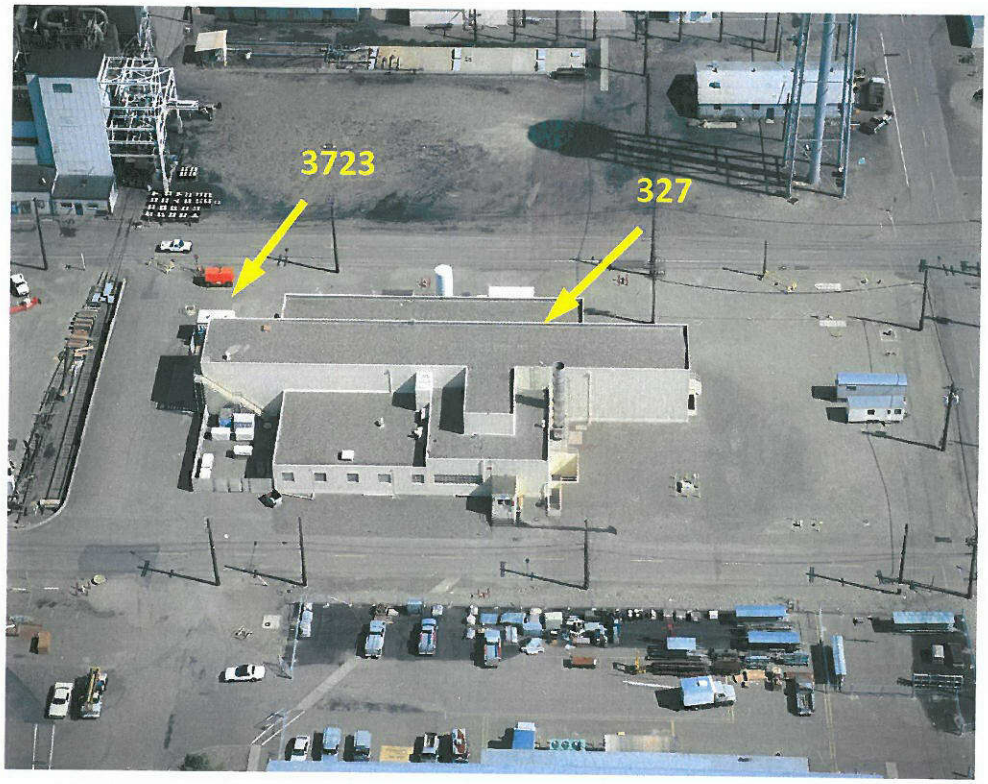


Figure 2. Looking northwest at the 327 Building on November 8, 2005.

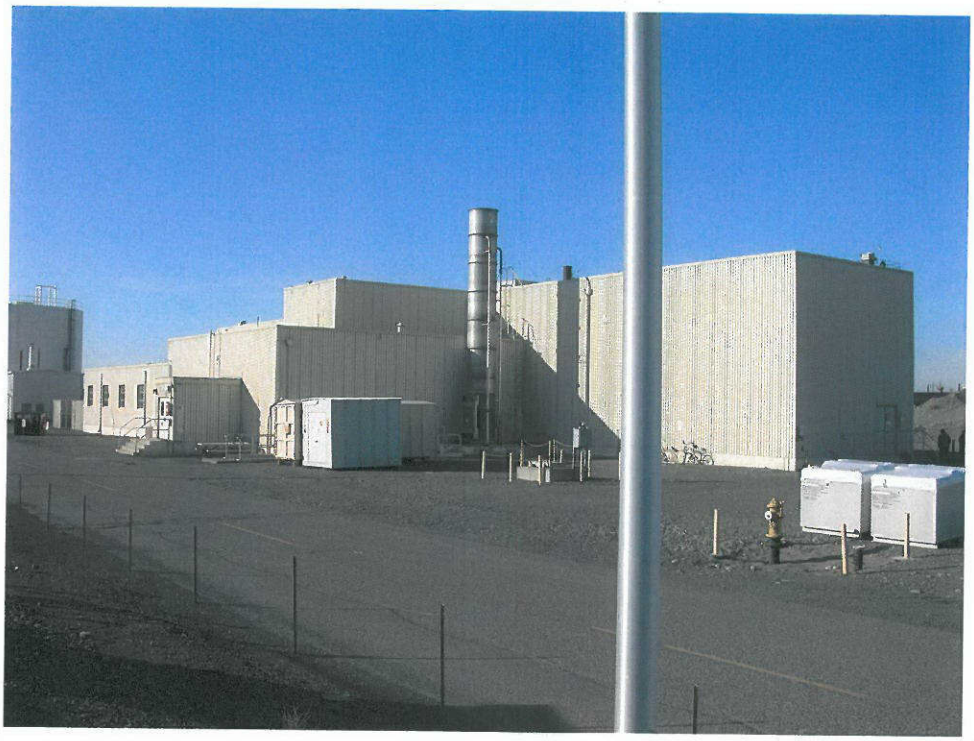


Figure 3. Looking north at the 3723 Building on March 31, 2006.

Figure 4. Aerial view looking south at 327 and 3723 during above-grade demolition on January 19, 2011.

Figure 5. Aerial view looking southwest at 327 and 3723 during below-grade demolition on May 29, 2012.

Figure 7. Aerial view looking north at 327 and 3723 Following Backfill

Figure 7. Aerial view looking south at final contamination 327 excavation areas prior to backfill on March 22, 2013.

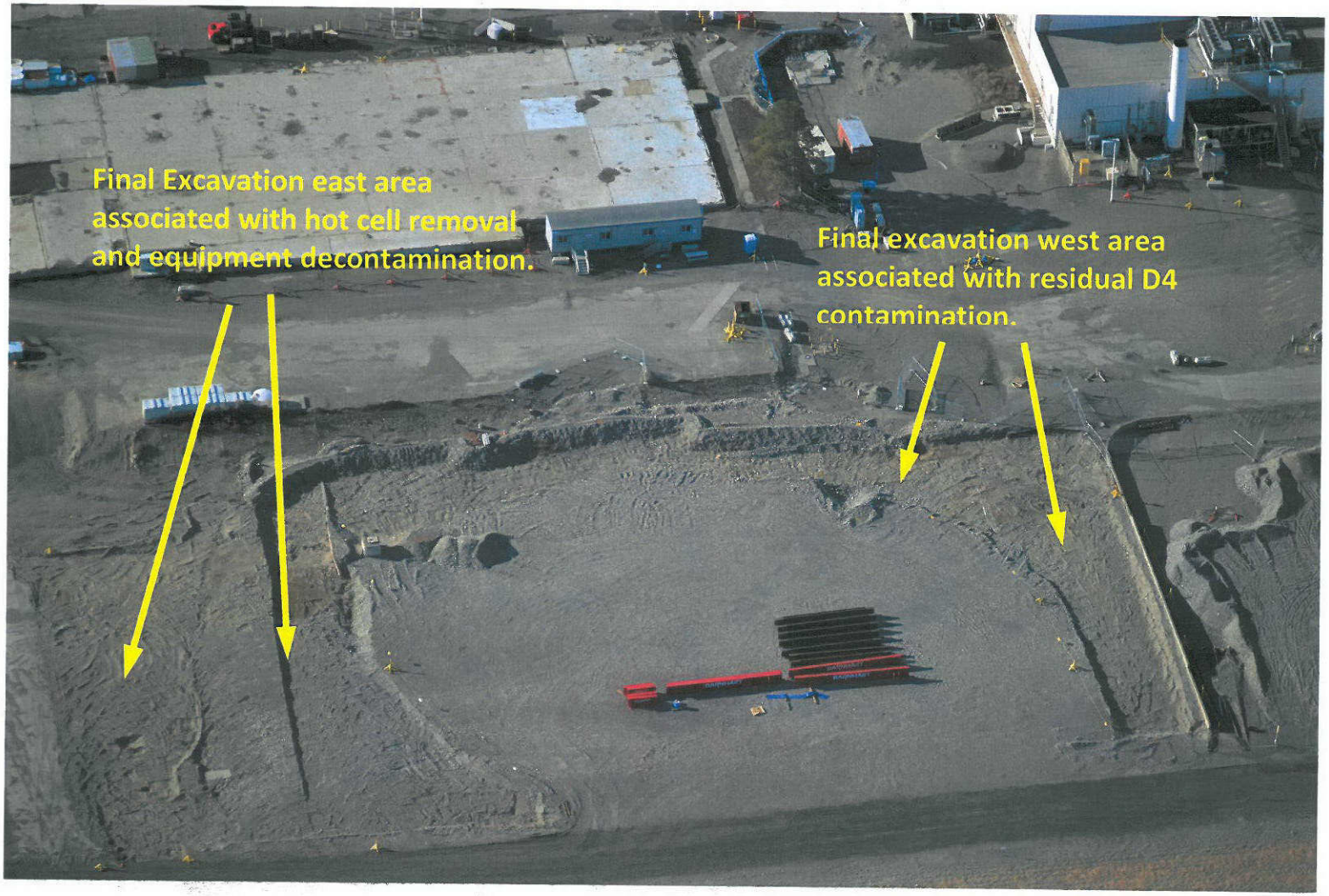


Figure 8. Looking north at the final east area excavation following backfill on April 16, 2013.

Figurer 9. Looking south at the final west area excavation following backfill on April 16, 2013

Attachment 3: Waste Site Reclassification Form 2012-038

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-038

Waste Site Code(s)/Subsite Code(s):

300-264 (327 Building)

Reclassification Category: Interim ☒ Final ☐

Reclassification Status: Closed Out ☒ No Action ☐ Rejected ☐

RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 300-264 waste site is synonymous with the 327 Post Irradiation Test Laboratory and is located within the 300-FF-2 Operable Unit. The 300-264 waste site was assigned to a physical structure and is not considered an unplanned release, nor does it otherwise represent contaminated media adjacent to or beneath the building. As such, the 327 Building was demolished in accordance with Action Memorandum #2 for the 300 Area and the *Removal Action Work Plan (RAWP) for 300 Area Facilities*, DOE/RL-2004-77, Rev. 2.

Demolition of the 327 Building and foundation was completed in May 2012 with residual soil contamination removal completed in early June 2012. Subsurface investigation of soils beneath the basement floor prior to demolition of that structure and subsequent evaluation of contaminated soils following basement removal confirmed no releases from the building occurred during past operations. It was concluded that residual soil contamination following demolition was the result of demolition operations. The one exception was contaminated soils encountered during removal of RRLWS and RLWS piping from the basement layback. The balance of both piping waste sites and their associated contaminated soils associated with each will be addressed as a remedial action as established in the *Interim Action Record of Decision for the 300-FF-2 Operable Unit.*

Site completion was performed in accordance with Section 2.6 of the RAWP and included an evaluation of soils underlying the building. Field investigations that included radiological surveys, soil sampling and visual inspection were performed. Final radiological surveys consisted of performing Global Positioning Environmental Radiological Surveys (GPERS) for both fission product and transuranic contaminants of concern (COCs). GPERS surveys were performed for beta, gamma, and alpha emitters, with a gamma track scaled to a known ratio of Am-241 that was used as an indicator for transuranic isotopes. All survey results (reference Attachment 1 - GPERS maps) for building footprint soils were confirmed to meet the 300-FF-2 Remedial Action Goals (RAGs) for industrial direct exposure. Forty one biased soil samples were taken and analyzed at the Radiological Counting Facility. An evaluation of these results (reference Attachment 2 – Data Table) determined they are consistent with GPERS investigations. A visual inspection of the excavation soils was performed and no staining or other anomalous conditions were observed. These evaluations have been performed in accordance with remedial action objectives (RAOs) established by the *Interim Action Record of Decision for the 300-FF-2 Operable Unit, Hanford Site, Benton County, Washington*, U.S. Environmental Protection Agency, Region 10, Seattle, Washington (300-FF-2 ROD) (EPA 2001).

WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2012-038

Waste Site Code(s)/Subsite Code(s):

300-264 (327 Building)

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☒ Yes ☐ No O&M Requirements: ☐ Yes ☒ No

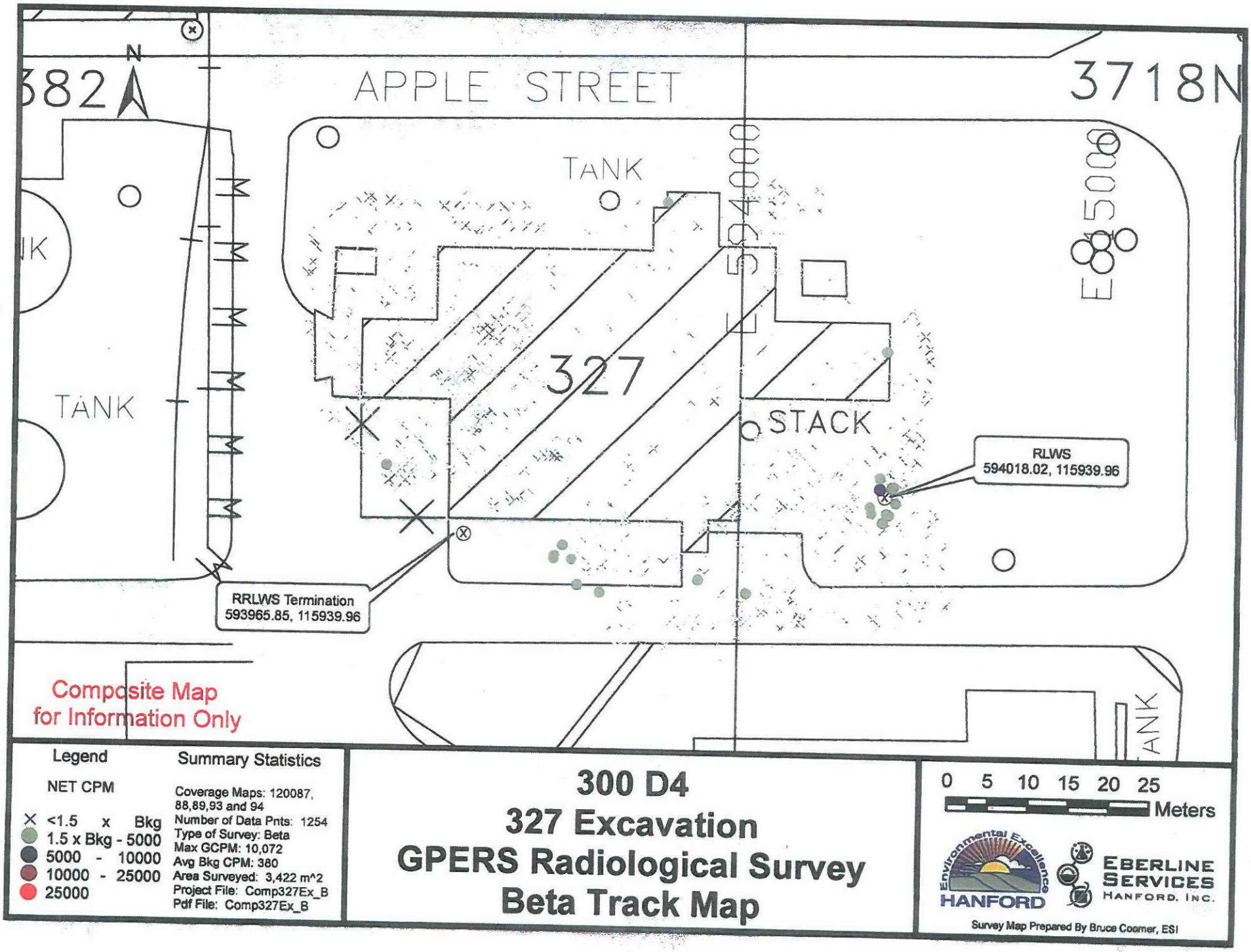
If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

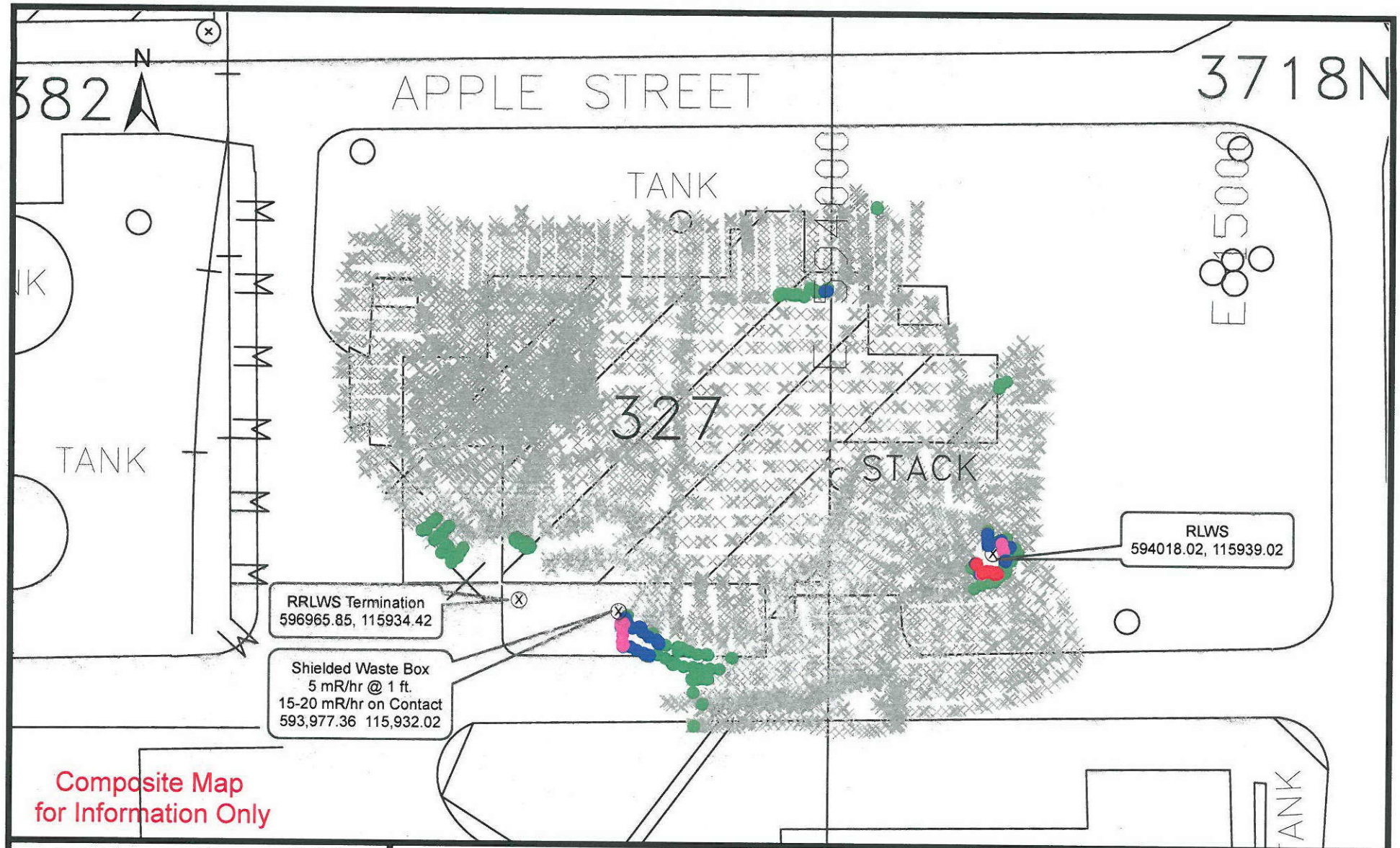
M. S. French for MSF DOE Federal Project Director (printed)	Signature	6/13/12 Date
N/A Ecology Project Manager (printed)	Signature	Date
Laura for Barlow L. E. Gadbois EPA Project Manager (printed)	Signature	6/13/12 Date

WASTE SITE RECLASSIFICATION FORM (2012-038)

ATTACHMENT 1

300-264 (327 BUILDING) EXCAVATION
GLOBAL POSITIONING ENVIROMENTAL RADIOLOGICAL SURVEY MAPS


N
382
APPLE STREET
3718N
TANK
327
STACK
TANK
TANK
E45000
594000
RLWS
594018.02, 115939.96
RRLWS Termination
593965.85, 115939.96
Composite Map
for Information Only
Legend
NET CPM
X <1.5 x Bkg
1.5 x Bkg - 5000
5000 - 10000
10000 - 25000
25000
Summary Statistics
Coverage Maps: 120087, 88,89,93 and 94
Number of Data Pnts: 1254
Type of Survey: Beta
Max GCPM: 10,072
Avg Bkg CPM: 380
Area Surveyed: 3,422 m^2
Project File: Comp327Ex_B
Pdf File: Comp327Ex_B
300 D4
327 Excavation
GPERS Radiological Survey
Beta Track Map
0 5 10 15 20 25
Meters
Environmental Excellence
HANFORD
EBERLINE SERVICES
HANFORD, INC.
Survey Map Prepared By Bruce Coomer, ESI



Legend

NET CPM

- × <1.5 x Bkg
- 1.5 x Bkg - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Summary Statistics

Coverage Maps: 120087, 88,89,93 and 94
Number of Data Pnts: 16,679
Type of Survey: Gamma
Max GCPM: 72,347
Avg Bkg CPM: 1221
Area Surveyed: 3,422 m^2
Project File: Comp327Ex_G
Pdf File: Comp327Ex_G

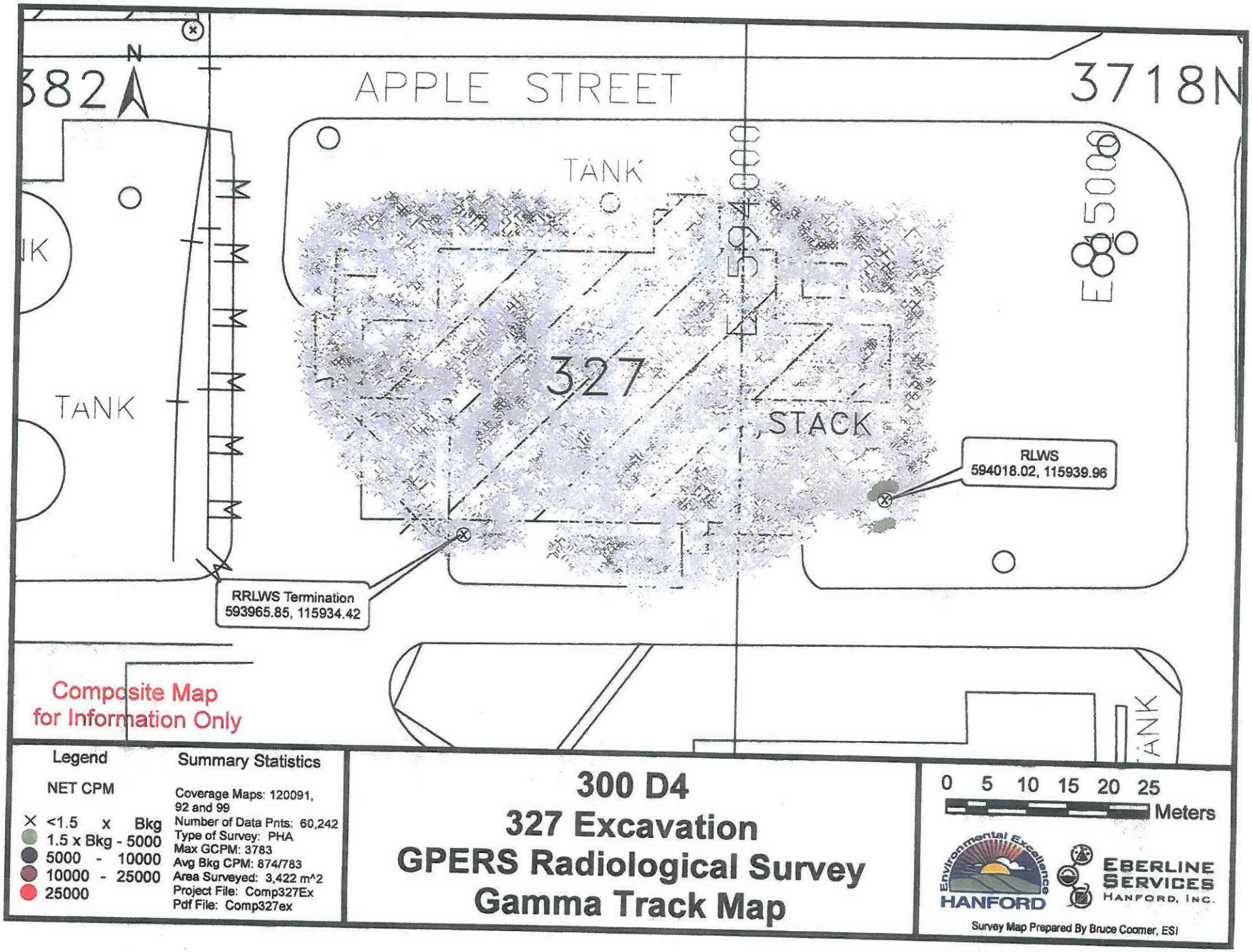
300 D4
327 Excavation
GPERS Radiological Survey
Gamma Track Map

0 5 10 15 20 25 Meters

Environmental Excellence HANFORD

EBERLINE SERVICES HANFORD, INC.

Survey Map Prepared By Bruce Coomer, ESI



Legend

NET CPM

- × <1.5 x Bkg
- 1.5 x Bkg - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Summary Statistics

Coverage Maps: 120091, 92 and 99
Number of Data Pnts: 60,242
Type of Survey: PHA
Max GCPM: 3783
Avg Bkg CPM: 874/783
Area Surveyed: 3,422 m^2
Project File: Comp327Ex
Pdf File: Comp327ex

300 D4
327 Excavation
GPERS Radiological Survey
Gamma Track Map

0 5 10 15 20 25 Meters

Environmental Excellence HANFORD

EBERLINE SERVICES HANFORD, INC.

Survey Map Prepared By Bruce Coomer, ESI

WASTE SITE RECLASSIFICATION FORM (2012-038)

ATTACHMENT 2

300-264 (327 BUILDING) EXCAVATION
SOIL SAMPLE DATA TABLE AND CALCULATED DATA TABLE

300-264 (327 Building) Soil Sample Results

RSR ID	RCF ID	Measured pCi/g			
		Cs-137	Pb-212	Ra-226d	Th-232d
FF2-12-0822-1	33344	6.5	---	---	---
FF2-12-0822-2	33345	1.8	0.9	---	---
FF2-12-0822-3	33346	---	1.3	0.8	0.9
FF2-12-0822-4	33347	15.9	0.8	---	---
FF2-12-0822-5	33348	2.7	---	---	---
FF2-12-0822-6	33349	---	1.3	---	1.2
FF2-12-0822-7	33350	2.5	1.5	0.8	1.0
FF2-12-0822-8	33351	9.8	---	---	---
FF2-12-0822-9	33352	---	---	---	---
FF2-12-0840-1	33376	---	1.0	---	---
FF2-12-0840-2	33377	---	0.8	---	0.7
FF2-12-0840-3	33378	---	---	---	---
FF2-12-0840-4	33379	---	---	---	---
FF2-12-0840-5	33380	---	---	0.6	---
FF2-12-0840-6	33381	---	0.9	---	---
FF2-12-0840-7	33382	---	---	---	---
FF2-12-0840-8	33383	---	0.8	---	---
FF2-12-0840-9	33384	---	---	0.7	---
FF2-12-0840-10	33385	3.8	0.9	---	---
FF2-12-0840-11	33386	0.6	---	---	---
FF2-12-0840-12	33387	---	---	---	---
FF2-12-0840-13	33388	---	2.0	---	0.7
FF2-12-0840-14	33389	---	0.9	---	---
FF2-12-0840-15	33390	---	---	---	---
FF2-12-0840-16	33391	---	1.0	---	0.8
FF2-12-0840-17	33392	---	0.7	0.5	0.7
FF2-12-0840-18	33393	---	---	---	---
FF2-12-0840-19	33394	---	1.0	0.5	---
FF2-12-0840-20	33395	---	1.2	---	0.7
FF2-12-0840-21	33396	---	---	---	---
FF2-12-0840-22	33397	---	0.8	---	---
FF2-12-0840-23	33398	---	---	0.6	0.8
FF2-12-0840-24	33399	---	---	---	---
FF2-12-0840-25	33400	---	---	0.5	0.3
FF2-12-0840-26	33401	---	---	---	---
FF2-12-0840-27	33402	---	---	---	---
FF2-12-0840-28	33403	0.3	1.0	0.5	---
FF2-12-0840-29	33404	---	---	0.6	0.7
FF2-12-0840-30	33405	1.7	---	0.8	---
300-FF-2 Industrial Direct Lookup Values		25	---	---	4.8

300-264 (327 Building) Calculated Soil Levels for Balance of Radionuclides*

(all units in pCi/g)

	Inferred pCi/g																							
	Gross α	Gross β	H-3	C-14	Co-60	Ni-63	Sr-90	Nb-94	Tc-99	Cs-134	Eu-152	Eu-154	Eu-155	Ra-226	Th-228	Th-230	U-233/234	U-235	Np-237	Pu-238	Pu-239/240	Pu-241	Am-241	Cm-242	Cm-243/244
RCF ID	1.54E-01	1.54E+00	4.42E-03	1.10E-02	6.13E-03	3.33E-03	3.90E-01	1.44E-03	7.76E-04	2.08E-03	3.77E-03	7.58E-03	3.01E-03	8.57E-02	4.80E-06	1.43E-05	5.15E-05		2.81E-05	1.74E-02	2.22E-02	1.76E-01	1.89E-02	6.84E-04	6.52E-03
33344	1.0	10.0	0.0	0.1	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.1	0.1	0.0	0.0
33345	0.3	2.8	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
33346	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33347	2.5	24.5	0.1	0.2	0.1	0.1	6.2	0.0	0.0	0.0	0.1	0.1	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.3	0.4	2.8	0.3	0.0	0.1
33348	0.4	4.1	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.0
33349	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33350	0.4	3.8	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0
33351	1.5	15.2	0.0	0.1	0.1	0.0	3.8	0.0	0.0	0.0	0.0	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.2	0.2	1.7	0.2	0.0	0.1
33352	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33376	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33377	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33378	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33379	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33380	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33381	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33382	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33383	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33384	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33385	0.6	5.8	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.1	0.0	0.0
33386	0.1	0.9	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
33387	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33388	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33389	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33390	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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33392	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33393	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33394	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33395	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33396	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33397	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33398	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33399	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33400	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33401	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33402	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33403	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33404	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
33405	0.3	2.6	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
300-FF-2 Industrial Direct Lookup Values	---	---	1980	82	5.2	3.37E+06	2500	---	410000	---	12	11	518	---	10.8	23.2	167	16	---	155	245	12900	210	---	---

*Scaled from isotopic ratios that existed in the 327 Building as established through testing (lower SERF Cell Sample ID J17J47).

RADIOLOGICAL SURVEY RECORD

Page 1 of 2 — Gage 6/5/12

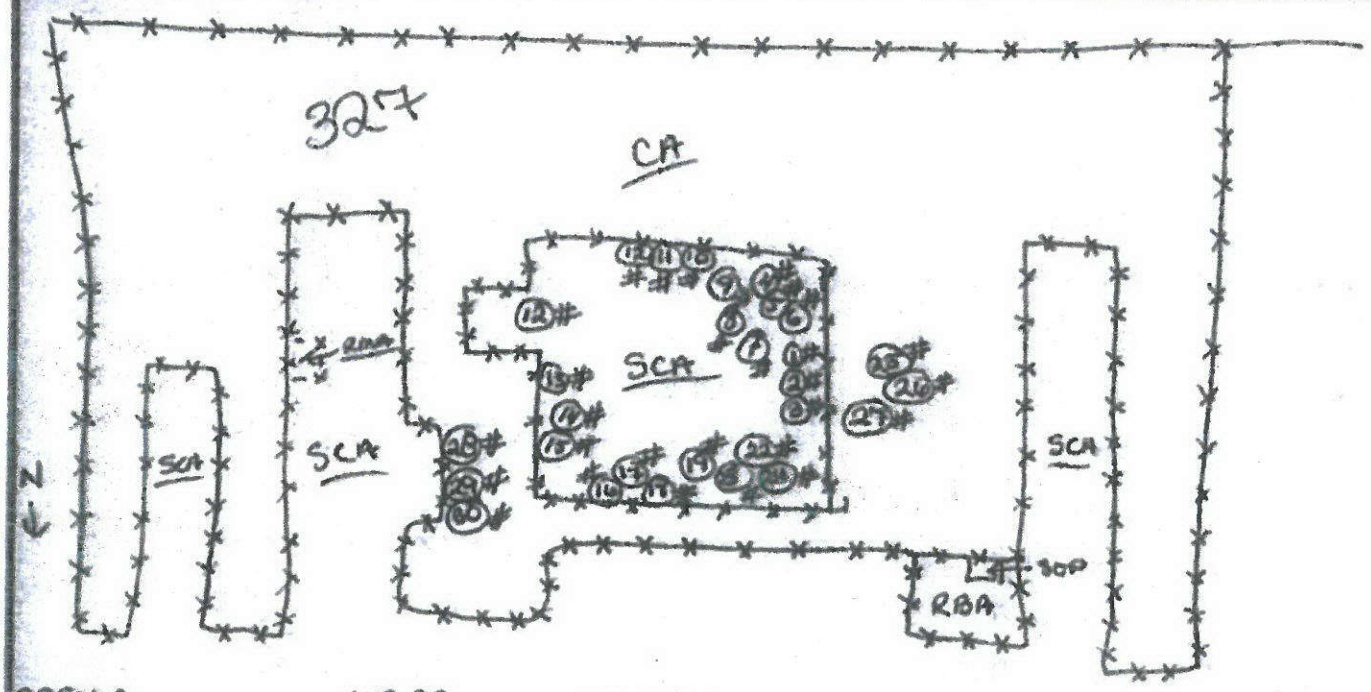
Type of Survey		Survey #
☐ Routine	☒ Work Progress	RSR – FF2-12- 0840

RWP # / Rev. #	Date	Time	Location
FF2-11-001/02	6/5/12	1100	300-FF-2/ 327

Description: Soil Samples taken for RCF

References: (e.g., SRTA, ASER, LASER, RSP, Work Package)

TA-04-SR-07/22



2224-3 SCLLB-0016 / 43-93 DTLLP-0054 / Cal.due 5/8/13 ← meter used for directs in field.

~~Eberline~~ 6/5/12 RO-20 ICEB4-0004 Cal.due 4/26/13

CA Contamination Area	HCA High Contamination Area	RBA Radiological Buffer Area	ARA Airborne Radioactivity Area	[AS] Air Sample Location	RMA Radioactive Materials Area	RA Radiation Area	HRA High Radiation Area	VHRA Very High Radiation Area

O Technical Smear	# Direct	M Large Area Wipe	T Transferable	General Area Dose Rates –Uncorrected Meter Reading (mR/hr)	All radiation readings are γ dose rates in units of mR/hr unless otherwise indicated	Contact 30cm	N Neutron (mRem/hr)	Δ Micro Rem (μR/hr)	SCA Soil Contamination Area	Radiological Boundary

Instruments

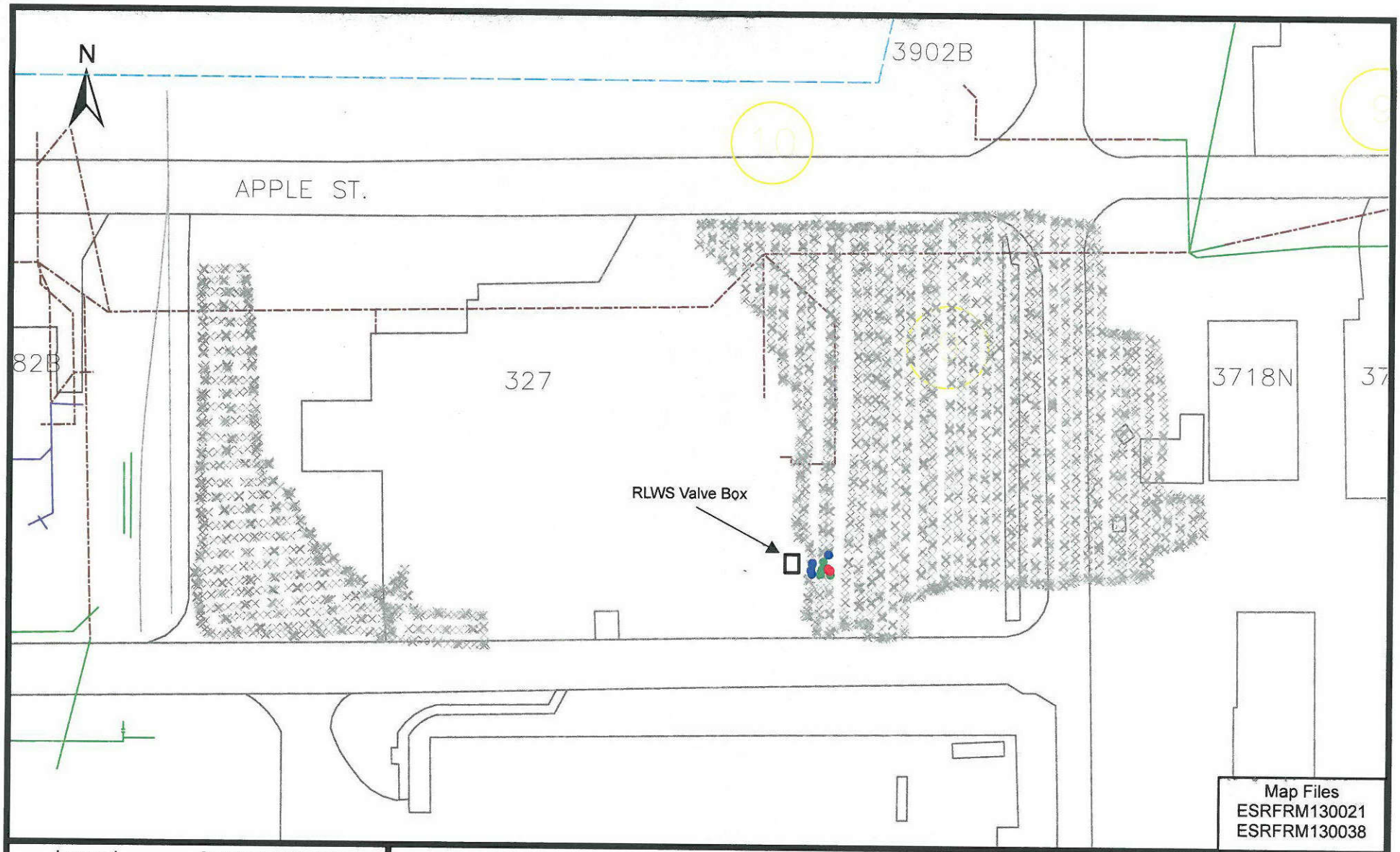
Model	ID #	Cal Due Date	Model	ID #	Cal Due Date
2224-3	SCLLB-0135	2/28/13	43-93	DTLLP-0019	2/28/13
2360	SCLLE-0014	1/10/13	43-93	DTLLP-0152	1/10/13
2360	SCLLB-0003	5/9/13	43-93	DTLLP-0101	5/9/13

RCT Name/Signature/Date: Kayla Claussen 6/5/12

RCT Supervisor Name/Signature/Date: Brian A. Hetzer 6/7/12

RCT signature indicates portable instruments checked IAW RC-300-2.1

Attachment 4: Final Excavation GPERS Surveys (beta and gamma tracks)



Legend

NET CPM

- × <1.5x bkg
- 1.5x bkg - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Summary Statistics

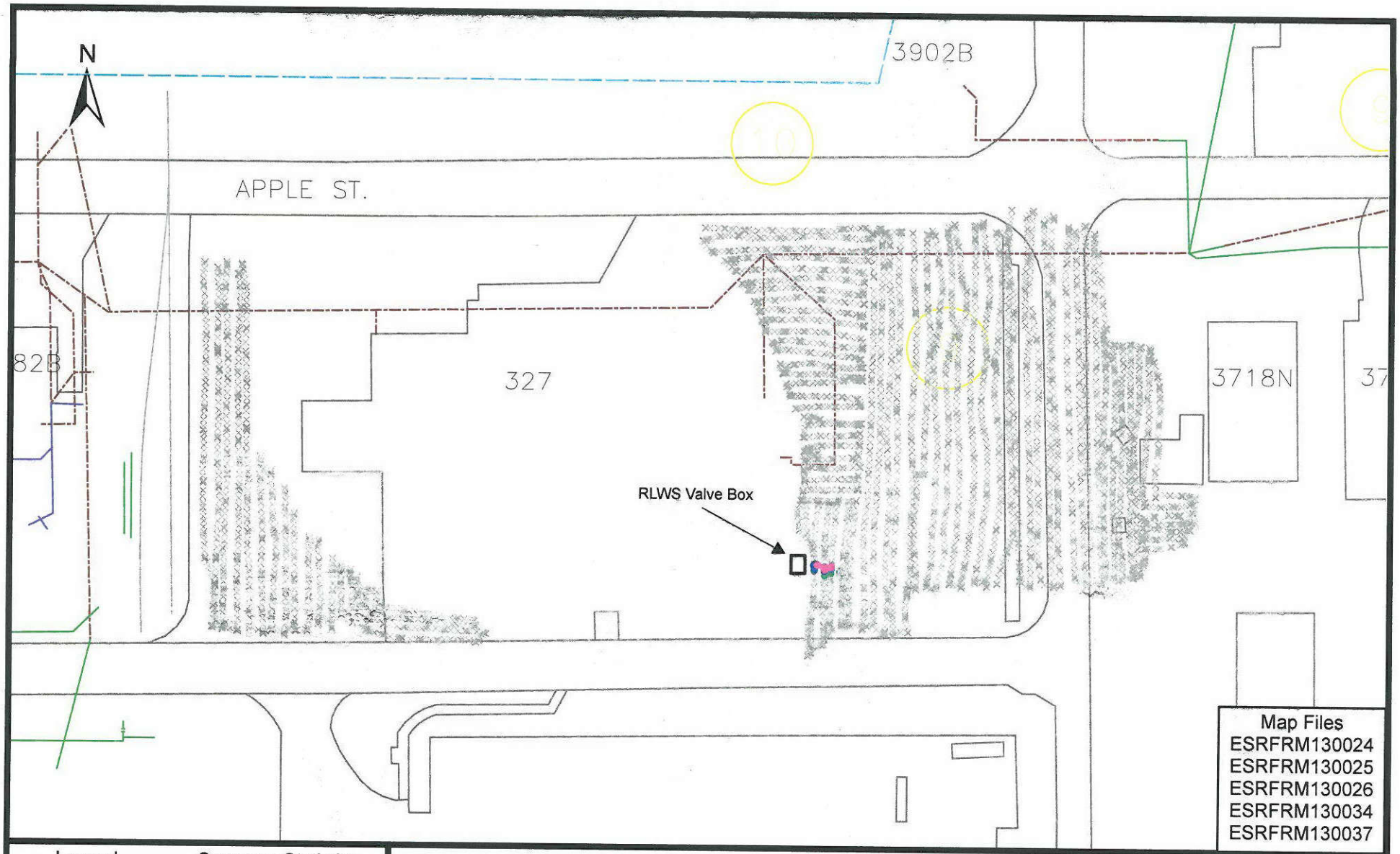
Number of Data Pnts: 10,657
Type of Survey: Gamma
Max GCPM: 38,409
Avg Bkg CPM:1369
Area Surveyed: 3,530 m^2
Project File: Cmp327E_G
Pdf File: Comp327Ex_G

300 D4
Composite 327
GPERS Radiological Survey
Gamma Track Map

0 5 10 15 20 25
Meters

EBERLINE SERVICES

Survey Map Prepared By Bruce Coomer, ESI



Legend

NET CPM

- × <1.5x bkg
- 1.5x bkg - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Summary Statistics

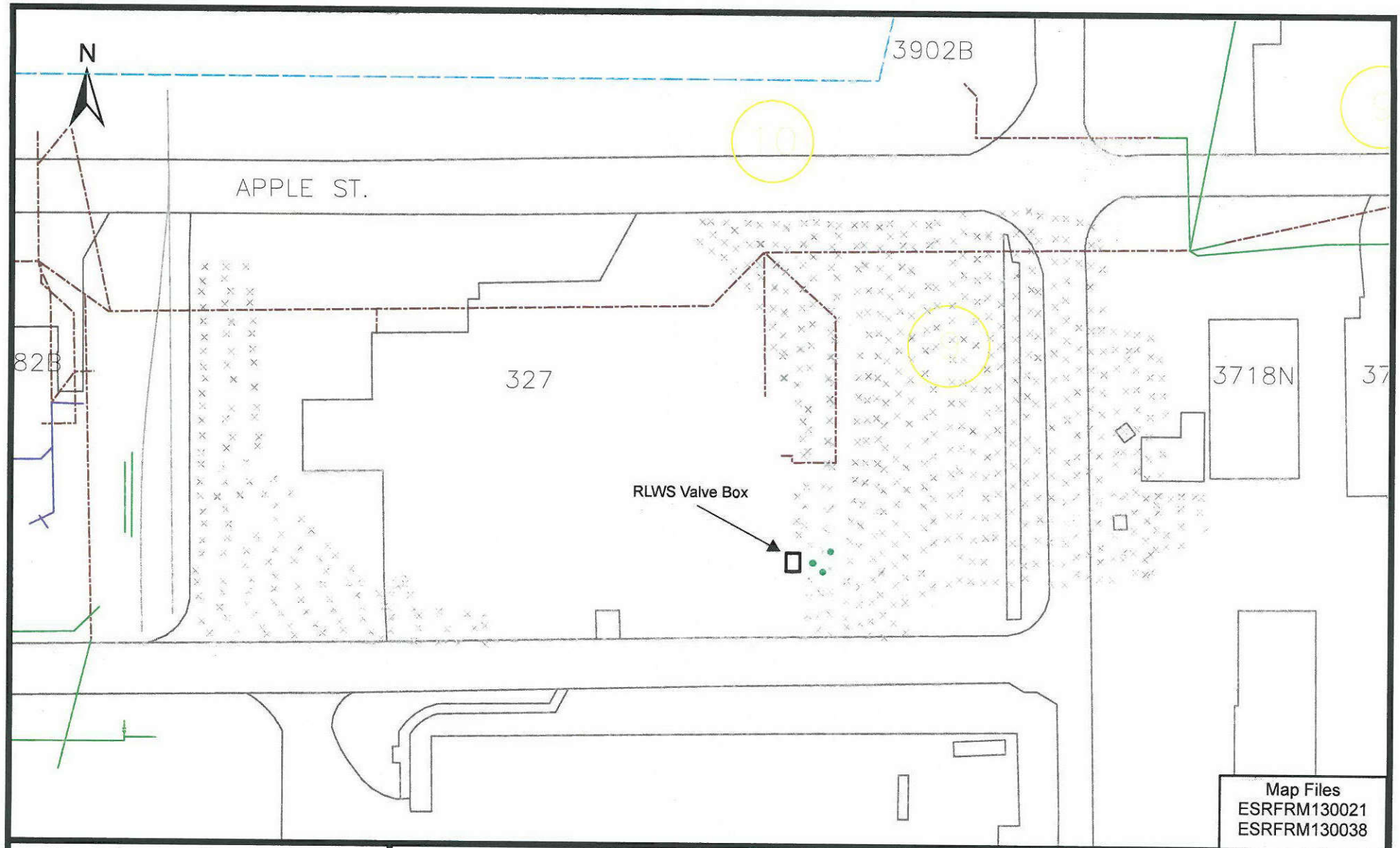
Number of Data Pnts: 52,154
Type of Survey: PHA
Max GCPM: 15,999
Avg Bkg CPM: 757
Area Surveyed: 2,960 m^2
Project File: Cmp327ExPHA
Pdf File: Comp327Ex_PHA

300 D4
Composite 327
GPERS Radiological Survey
Gamma Track Map

0 5 10 15 20 25
Meters

EBERLINE SERVICES

Survey Map Prepared By Bruce Coomer, ESI



Legend

NET CPM

- × <1.5x bkg
- 1.5x bkg - 5000
- 5000 - 10000
- 10000 - 25000
- 25000

Summary Statistics

Number of Data Pnts: 780
Type of Survey: Beta
Max GCPM: 2,468
Avg Bkg CPM:319
Area Surveyed: 3,530 m^2
Project File: Cmp327E_B
Pdf File: Comp327Ex_B

300 D4
Composite 327
GPERS Radiological Survey
Beta Track Map

0 5 10 15 20 25
Meters

EBERLINE SERVICES

Survey Map Prepared By Bruce Coomer, ESI